Attachment B: Peak View Wind Project

Pursuant to Decision No. C15-1182

June 1, 2018



Background

The Peak View Wind Project is a 60 MW wind project located in Huerfano and Las Animas Counties in Colorado. The project was initially selected as the winning bid in a competitive bid solicitation from Proceeding No. 13A-0445E.

The Commission granted Black Hills' request for a Certificate of Public Convenience and Necessity ("CPCN") to purchase and own the Peak View Wind Project consistent with the terms of a settlement agreement by Decision No. C15-1182 in Proceeding No. 15A-0502E ("the Settlement Agreement"). This decision approved the Settlement Agreement that was joined by Black Hills, Staff of the Colorado Public Utilities Commission, the Colorado Office of Consumer Counsel, the Colorado Energy Office, Western Resource Advocates, Invenergy Wind Development Colorado LLC, the Board of Water Works of Pueblo, the Fountain Valley Authority, and the Rocky Mountain Environmental Labor Coalition (collectively, the Settling Parties).

Settlement Agreement

While the Settlement Agreement contained a variety of key elements, some of them apply to this 2017 Annual RES Compliance Report. Below are a few key elements of the Settlement Agreement as they relate to the current 2017 Annual RES Compliance Report:

- The Company will not place the project into base rates before the end of 2026. Instead, the Company will collect the revenue requirement of the project through a combination of the Energy Cost Adjustment ("ECA") rider, the Transmission Cost Adjustment ("TCA") rider, and the Renewable Energy Standard Adjustment ("RESA").
- The avoided costs of the Peak View Wind Project, which represent the costs "avoided" due to the displacement of fuel and purchased power by the wind energy, were locked down on a \$/MWh basis through 2026. For 2017, this locked down avoided cost value is \$33.18 per MWh.
- The Company will only collect up to the avoided cost amount through a combination of the ECA and TCA. Any incremental costs above this avoided cost will be charged to the RESA account. Since the RESA is already a 2% charge on customers' monthly bills, this treatment ensures that customers are not paying more from a monthly bill perspective with the addition of the Peak View Wind Project as compared to not having the project.
- The Company will perform a standalone pro-forma revenue requirement analysis for each of the first ten calendar years of commercial operation of the Peak View Wind Project. The Company will perform this analysis twice first to implement the projected costs for the coming year and second to perform a "true-up" using actual costs at the end of the year. Over the course of the year, the Company will recover these projected costs. Early in the following calendar year, the Company will conduct an analysis of actual costs and perform a true-up for any under or over-recovery of the Peak View Wind Project costs.

- The Company will report the calculated revenue requirement and rate recovery treatment each year in the Annual RES Compliance Report. This began with the 2016 Annual RES Compliance Report.
- The performance assessment tool detailed in the Settlement Agreement will only take place for calendar years 2018 through 2026. Beginning in calendar year 2018 (annual report filed in 2019), Black Hills will annually measure its calculated annual cost against the Peak View Power Purchase Agreement ("PPA") cost. Black Hills will have a presumption of prudence for the recovery of the Peak View Wind Project cost if its calculated cost per MWh is lower than the PPA cost per MWh. If the Peak View Wind Project cost is higher than the PPA cost, Black Hills will be required to show the reasons(s) for the difference and will bear the burden of establishing the prudence of any costs above the PPA cost prior to recovery.

Revenue Requirement Comparison from 2017 Estimate as defined in Proceeding No.13A-0445E

Below is a comparison of the actual 2017 revenue requirement to the Company's initial Peak View Revenue Requirement estimate in Proceeding No. 13A-0445E.

Each quarter through the ECA rider filing, the Company forecasts the Peak View Wind Project's avoided costs based on the locked down \$/MWh value. Based on the forecasted avoided cost, the Company calculates the incremental cost and avoided cost to be recovered through the RESA and ECA, respectively. Two quarters later, through a respective ECA filing, the Company trues-up the Peak View Wind Project's forecasted cost with actual cost. Attachment B – Revenue Requirement is the 2017 actual revenue requirement. The Peak View Wind Project's revenue requirement is calculated on a monthly basis. This analysis is used to compare to the Year 1 revenue requirement per CMO-2 from Proceeding No. 13A-0445E.

The 2017 estimate forecasted a total 2017 Peak View Revenue Requirement of \$10,662,932. At the time of the forecast, the Company forecasted \$7,267,156 of this revenue requirement as being "avoided costs," which would be recovered through the ECA and/or TCA. The remainder of the revenue requirement, which was estimated at the time as \$3,395,776, was forecasted to be charged to the RESA. As shown below, the 2017 actual Revenue Requirement was \$9,990,914, which is \$672,018 less than the original estimate.

Estimated 2017 Revenue Requirement from Proceeding No. 13A-0445E

Time Period	Forecasted Avoided Costs (ECA)	Forecasted Incremental Cost/(Benefit) (RESA)	Forecasted Total Costs
January 1, 2017 – December 31, 2018	\$7,267,156	\$3,395,776	\$10,662,932

2017 Actual Revenue Requirement

Time Period	Actual Avoided Costs (ECA)	Actual Incremental Cost/(Benefit) (RESA)	Actual Total Costs	Annual Production (MWh)	Cost per MWh
January 1, 2017 – December 31, 2018	\$6,648,423	\$3,342,491	\$9,990,914	200,393	\$49.86

Per Attachment B – Revenue Requirement, Peak View Wind Project's annual production was 18,649 MWh less than originally forecasted. This results in a lower actual avoided cost as compared to the estimated forecast from Proceeding No. 13A-0445E. In addition, the Company incurred fewer costs for Interest Expense, O&M, Property Tax, Corporate Allocations, Wind Integration Services, and Federal/State Income Tax Expenses, as compared to the forecast. As a result of these efficiencies and coupled with lower production amounts generating less production tax credits and avoided costs, the Peak View Wind Project's revenue requirement was \$672,018 less than the original forecasted amount from Proceeding No. 13A-0445E. The actual incremental cost is calculated as the difference between the total cost and the total avoided cost.

The performance assessment tool, detailed in the Settlement Agreement, will only take place for calendar years 2018 through 2026. Beginning in calendar year 2018, if actual production from the Peak View Wind Project is less than the Settlement Agreement project (CMO-2) of energy production, the Company will normalize the actual wind generation. Black Hills did not perform the normalization for 2017, even though actual production was less than the production amount per CMO-2. The Company will apply the normalization process beginning in calendar year 2018, if necessary.

Attachment B - Revenue Requirement

Line No																		
1	Build/Transfer	Ś	102,046,507															
2	Allowance for Fund Used During Construction	Ś	1,699,794															
3	Interconnection Facilities	Ś	2,012,607															
4	Transaction and Ownership Costs	Ś	2.337.442															
5	Build/Transfer Price	\$	108,096,350															
6																		
7	Annual O&M Inflation Factor		2.00%															
8	Useful Life (yrs) (Book Purposes)		25															
9	Gross Capacity (MW)		60															
10	Estimated MWh Generated in a Year		219,042															
11	Return on Equity (Structure & Rate)	52.39%	9.37%				4.91%											
12	Interest Expense	47.61%	5.29%				2.52%											
13			A -4:1			RORB	7.43%											
14	Income Toy Date		Actual 38.00%															
15 16	Income Tax Rate Production Tax Credit per MWh	\$	38.00% 24.00															
17	Froduction rax credit per wwii	\$	24.00															
18		NovDec.2016	Jan-17	Feb-17	Mar-17	Apr-17	May-17	June-17	July-17	Aug-17	Sep-17	Oct-17	Nov-17 F	Period 1-11 True-up	Dec-17	Total Annual	Year 1 - CMO-2	Variance between Actual & Forecast
19	Net Book Value	\$ 106,083,743 \$						103,845,765 \$							101,772,611		\$ 104,734,000	Tananac between Actual & Foretast
20	Less Book Depreciation	\$ (510,349) \$		(345,526) \$					(345,526) \$								\$ (4,189,360)	
21	Tax Depreciation	\$ (54,921,178) \$						(5,256,197) \$						\$	5,256,197		\$ (20,946,800)	
22	Accumulated Deferred Income Taxes	\$ (397,177) \$	(660,768) \$	(922,834) \$	(1,183,376) \$	(1,442,400) \$	(1,699,908) \$	(1,955,905) \$	(2,210,395) \$	(2,463,381) \$	(2,714,866) \$	(2,964,856) \$	(3,213,353)	\$	(3,460,362)		\$ (6,367,827)	
24	Beginning Rate Base	\$ 106,083,743 \$	105,176,217 \$	104,567,100 \$	103,959,509 \$	103,353,440 \$	102,748,891 \$	102,145,857 \$	101,544,334 \$	100,944,319 \$	100,345,807 \$	99,748,796 \$	99,153,281	\$	98,559,258		\$ 104,734,000	
26	Ending Rate Base	\$ 105,176,217 \$	104,567,100 \$	103,959,509 \$	103,353,440 \$	102,748,891 \$	102,145,857 \$	101,544,334 \$	100,944,319 \$	100,345,807 \$	99,748,796 \$	99,153,281 \$	98,559,258	\$	98,388,646		\$ 94,176,813	
27	Interest Expense (line 24 x line 12)	\$ 351,926 \$	220,745 \$						213,122 \$					\$	206,857		\$ 2,784,888	
28	Return on Equity (line 24 x line 11)	\$ 648,300 \$	430,253 \$	427,762 \$	425,276 \$	422,797 \$	420,324 \$	417,857 \$	415,396 \$	412,942 \$	410,493 \$	408,051 \$	405,615	\$	403,185	\$ 4,999,950	\$ 5,130,174	\$ (130,224)
29																		
30	Land Lease Payments/Royalties	\$ - \$	24,058 \$				24,058 \$		24,058 \$	24,058 \$	24,058 \$	24,058 \$	24,058 \$				\$ 152,000	
31	O&M	\$ 931,956 \$	70,667 \$						70,667 \$	70,667 \$	70,667 \$							
32	Insurance	\$ - \$	7,324 \$			7,324 \$	7,324 \$	7,324 \$	7,324 \$	7,324 \$	7,324 \$	7,324 \$	7,324 \$					
33	Property Tax	\$ - \$	2,583 \$	2,583 \$		2,583 \$	2,583 \$	2,583 \$	2,583 \$	2,583 \$	2,583 \$	2,583 \$	2,583 \$				\$ 247,000	
34	Corporate Allocations	\$ - \$	83,333 \$				83,333 \$		83,333 \$	83,333 \$	83,333 \$	83,333 \$	83,333 \$	(272,684) \$				
35 36	PSCO Regulation Service	\$ - \$	69,257 \$	69,257 \$	69,257 \$	69,257 \$	69,257 \$	69,257 \$	69,257 \$	69,257 \$	69,257 \$	69,257 \$	69,257	\$	69,257	\$ 831,079	\$ 996,000	\$ (164,921)
37	Depreciation Expense	\$ 510,349 \$	345,526 \$	345,526 \$	345,526 \$	345,526 \$	345,526 \$	345,526 \$	345,526 \$	345,526 \$	345,526 \$	345,526 \$	345,526 \$	14,662 \$	360,188	\$ 4,175,633	\$ 4,189,360	\$ (13,727)
38 39	Fed/State Income Tax Expense	\$ 397,177 _\$	263,592 \$	262,065 \$	260,542 \$	259,024 \$	257,508 \$	255,997 \$	254,490 \$	252,986 \$	251,486 \$	249,990 \$	248,497	\$	247,008	\$ 3,063,185	\$ 3,144,284	\$ (81,099)
40 41	Deadwales Tay Coolis (Illes 40 & Iles 40) "1"	¢ (4.220.622) ¢	(500 550) \$	(702.246) 6	(828.395) \$	(745 C4C) A	(564.047) \$	(679,284) \$	(250 270) 4	(202 204) ^	(466,787) \$	(696.758) \$	(007.404)		(022 541)	ć /3.350.000\	A (0.300 F3.1)	
41 42	Production Tax Credit ((line 48 * line 16)/(1 - line 15))	\$ (1,238,623) \$	(680,559) \$	(703,346) \$	(828,395) \$	(746,640) \$	(564,047) \$	(6/9,284) \$	(359,370) \$	(392,281) \$	(466,/8/) \$	(696,758) \$	(807,404)	\$	(833,511)	\$ (7,758,382)	\$ (8,369,524)	\$ 611,142
43 44	CO EZ Tax Credit	\$ (21,558) \$	(10,779) \$	(10,779) \$	(10,779) \$	(10,779) \$	(10,779) \$	(10,779) \$	(10,779) \$	(10,779) \$	(10,779) \$	(10,779) \$	(10,779)	\$	(10,779)	\$ (129,350)	\$ (64,449)	\$ (64,901)
45 46	Total Revenue Req (lines 27 - 44)	\$ 1,579,527 \$	825,999 \$	797,916 \$	667,583 \$	744,068 \$	921,403 \$	800,922 \$	1,115,606 \$	1,077,477 \$	997,767 \$	762,605 \$	646,780	\$	632,788	\$ 9,990,914	\$ 10,662,932	\$ (672,018)
47 48	Monthly Production	33,384	17,578	18,167	21,397	19,285	14,569	17,545	9,282	10,132	12,057	17,997	20,855		21,529	200,393	219,042	\$ (18,649)
49 50	Cost per MWh	\$ 47.31 \$	46.99 \$	43.92 \$	31.20 \$	38.58 \$	63.24 \$	45.65 \$	120.19 \$	106.34 \$	82.76 \$	42.37 \$	31.01	\$	29.39	\$ 49.86	\$ 48.68	
		Total Avoided Costs \$	583,195 \$	602,721 \$	709,880 \$	639,821 \$	483,351 \$	582,102 \$	307,957 \$	336,159 \$	400,006 \$	597,076 \$	691,892		714,264	¢ 6649.422	\$ 7,267,156	
		Total Incremental Costs \$	583,195 \$ 242.804 \$	195.195 S	6 (42.298) \$	104.247 \$	483,351 \$ 438.052 \$	582,102 \$ 218.820 \$	807,957 \$ 807.649 \$	741.319 \$	597.761 \$	165.529 \$	(45.111)	Ş ė	(81.476)		\$ 7,267,156	
		Total Costs \$	825,999 \$						1,115,606 \$		997,767 \$			<u> </u>	632.788.02		\$ 10,662,932	
		Total Costs 3	023,399 3	121,210 3	, 007,303 3	744,000 3	741,4U3 Ş	000,322 3	1,113,000 3	1,077,477 \$	331,101 \$	702,003 3	040,760	- 3	032,700.02	9,550,514	y 10,002,332	

Attachment B - CMO -2 Estimated Peak view Wind Project Revenue Requirement (Updated for Settlement)

Line																											
No	<u> </u>																										
1	Build/Transfer	\$	101,484,000																								
2	Allowance for Fund Used During Construction Interconnection Facilities	\$	1,200,000																								
4	Transaction and Easement Costs	,	250,000																								
5	Build/Transfer Price	\$	104,734,000																								
6	Suid, Hurster Free	<u> </u>		&M Inflation for	Years 11-25																						
7	Annual O&M Inflation Factor		2.00%	4%																							
8	Useful Life (yrs) (Book Purposes)		25																								
9	Gross Capacity (MW)		60																								
10	Estimated MWh Generated in a Year		219,042																								
11	Return on Equity (Structure & Rate)	49.83%	9.83%			4.90%																					
12	Interest Expense	50.17%	5.30%		0000	2.66%																					
13 14			Actual		RORB	7.56%																					
15	Income Tax Rate		38.00%																								
16	Production Tax Credit per MWh	Ś	23.69																								
17																											
18			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25
19	Net Book Value		104,734,000	100,544,640	96,355,280	92,165,920	87,976,560		79,597,840	75,408,480	71,219,120	67,029,760	62,840,400	58,651,040	54,461,680	50,272,320	46,082,960	41,893,600	37,704,240	33,514,880	29,325,520	25,136,160	20,946,800	16,757,440		8,378,720	4,189,360
20	Less Book Depreciation		(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)	(4,189,360)
21	Tax Depreciation		(20,946,800)		(20,108,928)	(12,044,410)	(12,044,410)	(6,074,572)	(20 (55 222)	(27.052.255)	(25, 474, 200)	(22.070.252)	(22 207 205)	(20 005 420)	(40 402 402)	(47.544.535)	(45.040.500)	(44 227 644)	(42 725 654)	(44 443 600)	(0.554.744)	(7.050.704)	(6.267.027)	(4 775 070)	(2.402.044)	(4 504 057)	
22 23	Deferred Tax Liability		(6,367,827)	(17,511,525)	(23,560,961)	(26,545,880)	(29,530,799)	(30,247,179)	(28,055,222)	(27,063,266)	(25,471,309)	(23,879,352)	(22,287,395)	(20,695,438)	(19,103,482)	(17,511,525)	(15,919,568)	(14,327,611)	(12,/35,054)	(11,143,698)	(9,551,741)	(7,959,784)	(6,367,827)	(4,775,870)	(3,183,914)	(1,591,957)	U
24	Beginning of Year Rate Base	_	104,734,000	94,176,813	78,843,755	68,604,959	61,430,680	54,256,401	49,350,661	46,753,258	44,155,854	41,558,451	38,961,048	36,363,645	33,766,242	31,168,838	28,571,435	25,974,032	23,376,629	20,779,226	18,181,822	15,584,419	12,987,016	10,389,613	7,792,210	5,194,806	2,597,403
26																											
27	Interest Expense (line 24 x line 12)		2,784,888	2,504,171	2,096,463	1,824,213	1,633,448	1,442,683	1,312,239	1,243,174	1,174,109	1,105,043	1,035,978	966,913	897,848	828,783	759,717	690,652	621,587	552,522	483,456	414,391	345,326	276,261	207,196	138,130	69,065
28	Return on Equity (line 24 x line 11)		5,130,174	4,613,052	3,861,995	3,360,469	3,009,052	2,657,635	2,417,338	2,290,110	2,162,881	2,035,653	1,908,425	1,781,196	1,653,968	1,526,740	1,399,511	1,272,283	1,145,055	1,017,827	890,598	763,370	636,142	508,913	381,685	254,457	127,228
29 30	Land Lease Payments		152,000	155,040	158,141	161,304	164,530	167,820	171,177	174,600	178,092	181,654	185,287	188.993	192,773	196,628	200,561	204,572	208,663	212,837	217,093	221,435	225,864	230,381	234,989	239.689	244,482
31	O&M		1,744,200	1.779.084	1.814.666	1.850.959	1.887.978	1,925,738	1.964.252	2.003.538	2.043.608	2.084.480	2.167.860	2.254.574	2.344.757	2.438.547	2.536.089	2.637.533	2.743.034	2.852.755	2.966.866	3.085.540	3.208.962	3.337.320	3.470.813	3.609.646	3.754.032
32	Insurance		82,000	83,640	85,313	87,019	88,759	90,535	92,345	94,192	96,076	97,998	99,958	101,957	103,996	106.076	108.197	110,361	112,568	114,820	117,116	119,459	121,848	124,285	126,770	129.306	131,892
33	Property Tax		247,000	251,940	256,979	262,118	267,361	272,708	278,162	283,725	289,400	295,188	301,092	307,113	313,256	319,521	325,911	332,429	339,078	345,860	352,777	359,832	367,029	374,370	381,857	389,494	397,284
34	Corporate Allocations		627,000	639,540	652,331	665,377	678,685	692,259	706,104	720,226	734,630	749,323	764,310	779,596	795,188	811,091	827,313	843,859	860,737	877,951	895,510	913,421	931,689	950,323	969,329	988,716	1,008,490
35	PSCO Regulation Service		996,000	1,015,920	1,036,238	1,056,963	1,078,102	1,099,664	1,121,658	1,144,091	1,166,973	1,190,312	1,214,118	1,238,401	1,263,169	1,288,432	1,314,201	1,340,485	1,367,295	1,394,640	1,422,533	1,450,984	1,480,004	1,509,604	1,539,796	1,570,592	1,602,004
36																											
37	Depreciation Expense		4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360	4,189,360
39	Fed/State Income Tax Expense		3,144,284	2.827.340	2.367.017	2.059.632	1.844.248	1.628.865	1.481.586	1.403.608	1.325.630	1.247.652	1.169.674	1.091.695	1.013.717	935,739	857.761	779,782	701.804	623.826	545.848	467.869	389.891	311.913	233.935	155.956	77.978
40	· · · · · · · · · · · · · · · · · · ·	_	0,2 1 1,20 1	2,021,010	_,	_,,	-,0,2	-,,	2,102,000	2,,	2,020,000	-,,	-,,	-,,	-,,		,	,	,	020,020	0.0,0.0	,		0,0			,
41	Production Tax Credit ((line 48 * line 16)/(1 - line 15))		(8,369,524)	(8,528,379)	(8,690,241)	(8,855,166)	(9,023,211)	(9,194,437)	(9,368,902)	(9,546,668)	(9,727,797)	(9,912,352)															
42																											
43	CO EZ Tax Credit		(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)	(64,449)
44																											
46	Total Revenue Reg (lines 27 - 44)		10,662,932	9,466,259	7,763,812	6,597,799	5,753,863	4,908,381	4,300,871	3,935,507	3,568,514	3,199,862	12,971,611	12,835,349	12,703,581	12,576,468	12,454,173	12,336,868	12,224,732	12,117,948	12,016,709	11,921,212	11,831,665	11,748,280	11,671,280	11,600,896	11,537,366
47						, , , , , ,												,					, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
48	Annual Production		219,042	218,823	218,604	218,385	218,166	217,947	217,728	217,509	217,290	217,071	216,852	216,633	216,413	216,194	215,975	215,756	215,537	215,318	215,099	214,880	214,661	214,442	214,223	214,005	213,786
49																											
50	Cost per MWh	\$	48.68	\$ 43.26	\$ 35.52	\$ 30.21	\$ 26.37 \$	22.52	19.75	\$ 18.09	\$ 16.42	\$ 14.74	\$ 59.82	\$ 59.25	\$ 58.70	\$ 58.17	\$ 57.66	\$ 57.18	\$ 56.72	\$ 56.28	\$ 55.87	\$ 55.48	\$ 55.12	\$ 54.79	\$ 54.48 \$	54.21	\$ 53.97